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## **PENTAGON RENOVATION PROGRAM**

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## **PENTAGON RENOVATION PROGRAM “PHOENIX PROJECT”**

**From the ashes of the worst act of terrorism on American soil, a safer and stronger Pentagon will rise.**

**Area of Impact:** Wedge 1, which spans the southern half of the Pentagon’s Heliport side and the western half of the South Terrace, was the first one-fifth of aboveground space to be renovated and is discussed in greater detail in the “Projects in Progress” portion of this report. The 1,000,000-square-foot wedge was five days away from completion when it was struck by hijacked American Airlines Flight 77.

The Boeing 757 struck Wedge 1 on the Heliport side of the Pentagon very low to the ground and entered Wedge 1 just to the north of Corridor 4 on the first and second floors. The plane traveled through the Pentagon at a roughly 45-degree angle to the face of the building. It went through Wedge 1 and into the un-renovated Wedge 2 before exiting the C-ring, the third ring of offices, and into a roadway (A/E Drive) that circles the perimeter of the Pentagon between the B and C-rings.

**Security Enhancements:** According to federal investigators, the fully fueled plane was traveling at 350 mph when it struck the Pentagon. Several concrete support columns on the first floor were completely sheared away as the plane penetrated the E-ring. Three measures taken during the renovation of Wedge 1 to reinforce the inner and outer walls served to dramatically slow the plane as it entered the building, reduce the extent to which it penetrated the rings, and prevent the immediate collapse of the structure directly above the area of impact.

**Despite the tremendous impact of the plane and the fire that was fed by the plane’s fuel, the “web” created by the blast-resistant windows, steel columns, and geo-technical mesh, held the building together for 35 minutes, giving many Pentagon employees, some located directly above the area of impact, time to escape. The Pentagon Renovation Program received numerous accounts from personnel located in renovated areas directly above or adjacent to the area of penetration. Many of these personnel were standing directly in front of or close to the new blast-resistant windows. Most of the new units remained intact and prevented severe injuries and possible loss of life. However, old window units in Wedge 2, up to 200 feet away, blew out during the initial impact and explosion of jet fuel.**

**Damage assessments:** The fire that burned for nearly three days after the impact left extensive damage on the Wedge 2 side of the building. However, new sprinklers in Wedge 1 extinguished the fire quickly where it was not directly fed by jet fuel and minimized the spread of fire throughout the wedge. In addition to fire and smoke damage, water damage and mold caused by the thousands of gallons of water that flooded the building have caused health concerns. Air monitoring results have been analyzed on a daily basis for mold, asbestos, lead and silicate. Once the site was turned over from the FBI to the Pentagon Renovation, hazardous conditions were quickly brought under control and acceptable air quality levels were achieved.

**Demolition and Debris Removal:** The collapsed area of the building was removed to safely continue the recovery effort. In all, approximately 10,000 tons of debris were removed from the

site in the weeks immediately following September 11<sup>th</sup>. Structural damage caused by the impact to the concrete columns and floor slabs required the full demolition of the C, D, and E-rings between Corridors 4 and 5, an area encompassing nearly 400,000 square feet. The demolition of this area began on October 18, 2001, starting with the disassembly of outer limestone cladding on the exterior of the building.

**Immediate Response:** Within minutes following the attack, the Pentagon Renovation Program took action to provide personnel, equipment and materials for the rescue and recovery effort. Contractors from other renovation projects around the Pentagon were mobilized within minutes of the attack. Architects, engineers and construction personnel with extensive knowledge of the Pentagon proved to be a valuable resource to the efforts of the rescue teams. According to FBI officials, the crime scene investigation of the magnitude of the attack on the Pentagon normally would require a minimum of six weeks to complete. However, the prompt support of the Renovation Program, the Pentagon Building Management Office and the private sector reduced the period of investigation to two weeks.

**Contracting Actions:** By September 15<sup>th</sup>, just three days after the attack, the Pentagon Renovation Office had awarded contracts amounting to \$1.3 billion dollars to begin the reconstruction of the damaged areas and move forward with the Renovation Program. A not-to-exceed (NTE) \$520-million letter contract was awarded to AMEC, the original Wedge 1 contractor, for the rebuilding and restoration efforts in Wedge 1. A base \$758-million contract for the renovation of Wedges 2 through 5 was awarded to Hensel Phelps Construction, the culmination of a year-long competition. Several letter contracts were written to initiate immediate specialized recovery activities, including historic restoration of the damaged façade. In addition, the Government Services Administration and the Pentagon's Real Estate and Facilities Division worked together to lease over 800,000 square feet of nearby office space to relocate the 4,600 Pentagon tenants displaced by the attack.

**Other Support:** While the Pentagon Renovation Program has received significant notoriety because of its actions during the recovery period, it should be noted that many building organizations played extremely significant roles in the response and recovery efforts. Washington Headquarters Services (WHS) offices were in the forefront of these activities; specifically, the Real Estate and Facilities Office which accomplished immediate lease and move activities, the WHS Contracting Office which provided contracting support for efforts by WHS organizations, the Federal Facilities Division which provided heroic services from the newly constructed Wedge 1 Building Operations Control Center while the building was on fire. The Federal Facilities Division —subsequently assisted in numerous recovery activities and contributed directly and significantly to bringing damaged utility systems back on line. In addition, the WHS- Defense Protective Service (DPS) provided the first response to the disaster scene, taking quick action which saved lives and helped ensure that injuries were treated quickly and effectively while securing the crash site. DPS subsequently provided security services over many days under the most difficult of circumstances, which allowed recovery activities to be accomplished in an efficient and effective manner. Last but not least, the WHS General

Counsel's Office provided timely and prudent advice which helped greatly in the decision making process and contributed greatly to speed with which response could be provided.

**Recovery and Re-occupancy:** In areas of Wedge 1 with less extensive damage, the cleanup of water, smoke and mold progresses rapidly. Crews have worked around the clock to replace drywall, restore electrical power and communications capabilities, install new carpeting and replace furniture. Vanguard personnel from the Office of the Secretary of Defense were relocated back into Wedge 1 on October 2, 2001, just 22 days after the attack. It is anticipated that significant amounts of recovered areas in Wedge 1 will be turned over for occupancy from November 2001 through January 1, 2002.

**Schedule:** In addition to the rebuilding efforts, the Renovation Program is continuing with its original scope of work. At the time of the attack, all renovation work was scheduled to be completed in December 2012. The Renovation Program intends to make up lost time and meet the original schedule. The Army Corps of Engineers expects to dedicate a memorial at the crash site on September 11, 2002, the one-year anniversary of the attack. The Pentagon Renovation Program has taken as a personal challenge to relocate personnel back into the E-ring adjacent to the crash site allowing them to watch the dedication ceremony from their offices.

**New Security Initiatives:** Due to the increasing threats of terrorism, the need for security improvements has become more urgent. Even preceding the events of 11 September, to meet potential threats, the Renovation Program had been tasked with projects outside of its original scope of work, such as the Remote Delivery Facility, the Metro Entrance Facility, and other security related enhancements incorporated within renovation activities. These ancillary projects are funded outside of the Renovation Program's \$1.22 billion cost cap and are discussed in detail in this Report. As demonstrated on September 11, 2001, some building security enhancements paid for themselves in the blink of an eye by saving lives and preventing countless injuries. In coordination with the Defense Protective Service, the Pentagon Renovation Program is continuing to evaluate other potential security enhancements at the Pentagon.

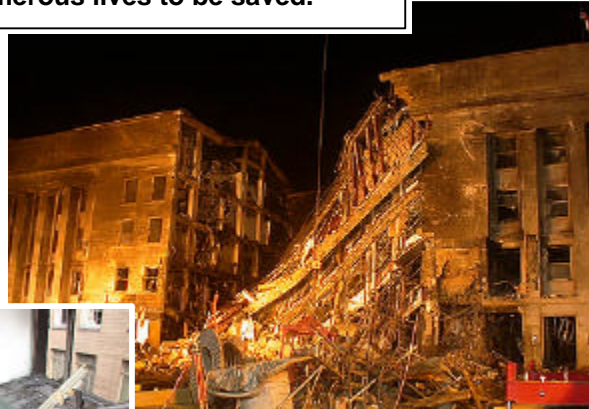
**Lessons Learned:** The Renovation Program also has initiated an effort to gather information about the building's performance immediately following the attack. Personnel near the area of impact have been asked to provide their observations, especially during their attempts to evacuate areas ravaged with explosion, fire, and smoke. These and other valuable insights will be compiled and translated into a "lessons learned" document, provided to both the Wedge 1 and Wedges 2-5 contractors, and used to further improve building structures. To the greatest extent possible, these lessons learned will be incorporated into new designs to improve building operations, and in particular, fire and life safety systems.



## PHOENIX PROJECT - PICTORIAL HISTORY

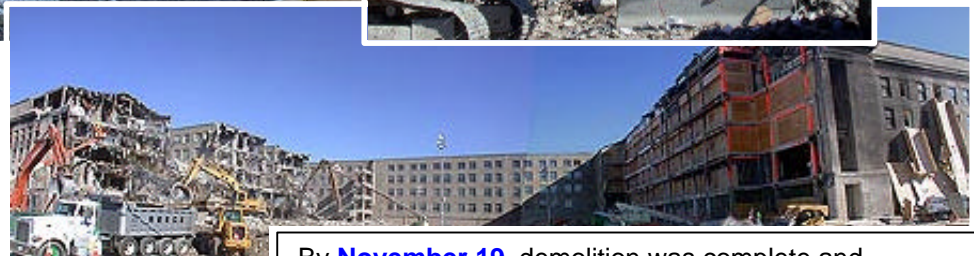
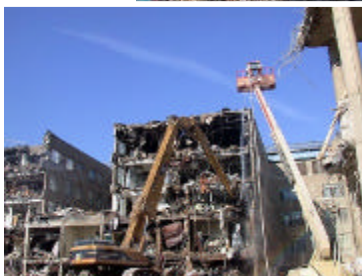


An aerial view (left) and close-up of the crash site. The structural improvements made by **PENREN** prior to the 9/11 attack enabled the building to stand intact for 35 minutes before collapse, allowing numerous lives to be saved.



**Blast damage.** Many offices, though not directly hit by Flight 77, were severely damaged by the force of impact.

**Back to Business.** **PENREN** moved in quickly to begin clearing the damage done by the September 11, attack. Demolition began on **October 18, 2001.**



By **November 19**, demolition was complete and reconstruction was underway. Normally, complete demolition of a project this size would take about six months. **PENREN** crews accomplished it in **one month and one day**





**PENREN** contractors have worked around the clock to make progress on the reconstruction. By **December 19**, a significant portion of the second floor concrete had been poured.



A contractor (*below*) putting in the first window of the E-Ring façade on **December 28**. The entire outer face of the building is scheduled for completion by **September 11, 2002**.



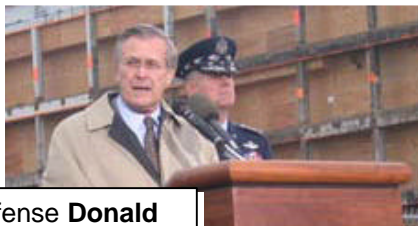
A worker (*above, right*), setting up the form for a concrete support column. About **25 columns** are poured every day on the Phoenix Project site.



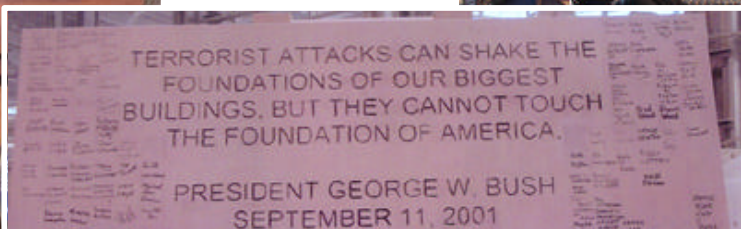
The events of **September 11** have made the **Phoenix Project** the focus of a great deal of national attention, and the location of numerous tours and events....



**Left Photo: PENREN** Program Manager **Lee Evey** talks to **Scott Pelly** from 60 Minutes II. Below, a worker gives a quick interview for PBS.



Secretary of Defense **Donald Rumsfeld** spoke to an audience at a Remembrance Ceremony, on **December 11**, 100 days after the attack.



Above, a commemorative slab of limestone signed by personnel from the **Bybee Limestone Company** and containing an inscribed message from President **George W. Bush** was sent to the Phoenix Project. The reconstruction project will require a total of **38,000 square feet of limestone**. **8,000 square feet** will be salvaged from the original façade.



## PROJECT OVERVIEW

*The **Pentagon Renovation Program** is comprised of several separate efforts of work. Some of them are considered ancillary to the Pentagon Renovation Program and fall outside of the Congressional cost cap.*



**Wedge 1** - Wedge 1, approximately 1 million square feet, is the first fifth of above ground space in the Pentagon to undergo renovation. Structural demolition and the abatement of hazardous materials began in 1998, followed by the installation of new utilities and the build-out of tenant areas. A phased move-in of tenants began in February 2001. The project was five days from completion when the Pentagon was attacked by hijacked American Airlines Flight 77 on September 11, 2001.

**The Phoenix Project** – This project involves the renovation and reconstruction of portions of **Wedge 1** and **Wedge 2**. American Airlines Flight 77 went through Wedge 1 and into the unrenovated Wedge 2 before exiting the C-ring. Demolition was completed by November 19, and tremendous progress has been made on the reconstruction. PENREN plans to finish the E-Ring façade of the building by September 11, 2002, the one-year anniversary of the attack.



**Wedges 2 through 5** - Wedges 2 through 5 (all five floors) have been awarded as a single acquisition, with phased construction. The project also includes providing utilities for future occupation of the Pentagon's basement and mezzanine, which will be sequenced with the work in the wedges above.



**Remote Delivery Facility (RDF)** - The Remote Delivery Facility (RDF) is a new 250,000-square foot shipping and receiving facility adjoining the Pentagon. The RDF significantly improves the physical security of the Pentagon by providing a secure consolidated location for receiving and screening thousands of items shipped to the building each day.



**Metro Entrance Facility (MEF)** - The Metro Entrance Facility project was directed by Congress in the FY2000 Department of Defense Appropriations Act in response to security assessments that identified the need to improve the physical security of the Pentagon. These initiatives involve relocating the current bus station and removing the existing direct entry into the Pentagon from the Metrorail station.





**Physical Fitness and Readiness Facility (PFRF)** - The Physical Fitness and Readiness Facility (PFRF) will replace the existing 55-year old Pentagon Athletic Facility with a larger, modern facility that meets membership fitness and readiness needs based on current usage patterns and anticipated incremental growth. The 130,000-square-foot facility will be located at basement level underneath and adjacent to the Pentagon's Mall Terrace.



**Swing Space** - To keep the Pentagon operational at all times during renovation, one fifth of the building's 25,000 occupants must be relocated to swing space, temporary office space in and around the Pentagon. The vacated "wedge" of the Pentagon is then sealed off for demolition and abatement.



**Basement/Mezzanine** - Basement and Mezzanine levels exist under three fifths of the Pentagon. This area has been divided into three segments. Segment 1 has been renovated and is now occupied by 1,200 Air Force personnel and the new DiLorenzo TRICARE Health Clinic. Segments 2 and 3 have been demolished and abated of all hazardous materials.



**Condenser Intake/Outfall Line** - The new condenser intake/outfall line replaces the 58-year old, deteriorated, underground pipe that supplies cooling water from Boundary Channel Lagoon to the Heating and Refrigeration Plant.



**Information Management and Telecommunications** - Separate but related to the Pentagon Renovation Program is a necessary modernization of the building's information management and telecommunications infrastructure and systems.



**Navy Build-out 2A1** - Navy requires approximately 25,000 square feet of space in the Pentagon. The area designated for this project in Basement Segment 2A1 is the only available space.



For more information, Visit our Web Site  
<http://renovation.pentagon.mil>





## WALKER LEE EVEY



Walker Lee Evey is ***Program Manager, Pentagon Renovation Program Office***, the Pentagon, Washington, D.C. In this position he reports directly to the Deputy Secretary of Defense. He is responsible for development and control of budgets, work schedules, acquisition strategy and plans and programs for use of swing space and for coordination and control of all office movements within the Pentagon involved with Pentagon Renovation activities. He serves as the principal adviser to the Secretary of Defense and the Deputy Secretary of Defense for all matters relating to the Pentagon Renovation Program. Estimated total cost for the entire seven phases of the Pentagon Renovation program, including information management and telecommunications activities, totals approximately \$3 billion.

Mr. Evey was born in St. Petersburg, FL. After graduating from Boca Ciega High School in 1964, he attended St. Petersburg Junior College until 1966. He enlisted in the U.S. Army and in 1967 was commissioned a Second Lieutenant in the infantry. During 1968 and 1969, he served as an Infantry Platoon Leader and Company Commander with the 1st Battalion, 26th Infantry, First Infantry Division, Quan Loi, South Vietnam, where he participated in numerous combat operations. Mr. Evey entered federal service in January 1974 as a member of the Air Force Copper Cap Training Program at Patrick Air Force Base, FL. He is a member of the Senior Executive Association, the Air Force Association and the National Contract Management Association.

### EDUCATION:

1971 Bachelor's degree in Psychology, University of South Florida, Tampa  
1973 Master's degree in Special Education, University of South Florida, Tampa  
1976 Master's degree in Management Science, Florida Institute of Technology, Melbourne

### CAREER CHRONOLOGY:

**January 1974 - January 1977**, Member, Air Force Copper Cap Training Program, Patrick Air Force Base, FL

**January 1977 - October 1977**, Contracting Officer, Construction Services Branch, Patrick Air Force Base, FL

**October 1977 - March 1980**, Contract Analyst for Base Contracting, Headquarters Air Force Systems Command, Andrews Air Force Base, MD

**March 1980 - October 1981**, Supervisory Contract Specialist, Department of Energy Headquarters, Office of Procurement Operations, Washington, DC

**October 1981 - October 1982**, Procurement Analyst, Directorate of Systems and Support Contracts, Headquarters Air Force Systems Command, Andrews Air Force Base, MD

**October 1982 - September 1984**, Deputy Director, Directorate of Systems and Support Contracts, Headquarters Air Force Systems Command, Andrews Air Force Base, MD

*Career Chronology – Continued*

**September 1984 - February 1985**, Member, Contract Clearance Office, Headquarters Air Force Systems Command, Andrews Air Force Base, MD

**February 1985 - February 1987**, Director, Contract Policy Development Division, Headquarters Air Force Systems Command, Andrews Air Force Base, MD

**February 1987 - January 1993**, Director, Program Operations Office of the Assistant Administrator of Procurement, National Aeronautics and Space Administration, Washington, DC

**January 1993 - March 1994**, Director, Procurement Policy Division, National Aeronautics and Space Administration, Washington, DC

**March 1994 - June 1994**, Lead Negotiator, Russian Space Agency, Mir Space Station Contract, National Aeronautics and Space Administration, Washington, DC

**June 1994 - January 1995**, Lead Negotiator, International Space Station Contract, National Aeronautics and Space Administration, Washington, DC

**January 1995 - May 1995**, Director, Acquisition Liaison Division, National Aeronautics and Space Administration, Washington, DC

**May 1995 - August 1995**, Director of Procurement, Kennedy Space Center, FL

**August 1995 - February 1996**, Solicitation Preparation Team Leader, Space Shuttle Space Flight Operations Contract, Johnson Space Center, Houston, TX

**February 1996 - March 1996**, Special Assistant to the Director, Kennedy Space Center, FL

**March 1996 - July 1996**, Special Assistant for Contracting, Air Force Office of the Deputy Assistant Secretary (Contracting), Assistant Secretary (acquisition), Washington, DC

**July 1996 - November 1997**, Associate Deputy Assistant Secretary (Contracting), Office of the Assistant Secretary of the Air Force for Acquisition, Washington, DC

**November 1997 - Present**, Program Manager, Pentagon Renovation Program Office, the Pentagon, Washington, DC

**AWARDS AND HONORS:**

**Bronze Star Medal**

**Air Medal**

**Army Commendation Medal**

**Vietnam Service Medal**

**Republic of Vietnam Campaign Medal**

**Combat Infantry Badge**

**1992 SES Outstanding Performance Award**

**1992 Presidential Rank Award - Meritorious Executive**

**1993 SES Outstanding Performance Award**

**1993 Group Achievement Award - Information Resources Improvement Team**

**1994 SES Outstanding Performance Award**

**1994 NASA Exceptional Performance Award**

**1994 International Space Station Freedom Award of Merit**

**1995 Presidential Rank Award - Distinguished Executive**  
**1995 NASA Distinguished Service Medal**  
**1992 Presidential Rank Award - Meritorious Executive**  
**1993 SES Outstanding Performance Award**  
**1993 Group Achievement Award - Information Resources Improvement Team**  
**1994 SES Outstanding Performance Award**  
**1994 NASA Exceptional Performance Award**  
**1994 International Space Station Freedom Award of Merit**  
**1995 Presidential Rank Award - Distinguished Executive**  
**1995 NASA Distinguished Service Medal**



## **MICHAEL R. SULLIVAN**

Michael R. Sullivan is the *Deputy Program Manager* for the *Pentagon Renovation Program*. In this position, he reports directly to the Program Manager and is responsible for development and execution of budgets on the \$3B+ program, development and execution of acquisition strategies, and planning and programming.

Mr. Sullivan was a civilian with Air Force Special Operations until 1985 at which time he entered the field of contracting as an intern. As an intern, Contracting Officer and Business Advisor, he worked in positions of increasing responsibility to include: the area of research and development as a contracts troubleshooter; several foreign major systems acquisitions; and major weapons systems programs. In 1995, he was selected for a position at Air Force Contracting Headquarters in the Pentagon and worked in the areas of contracting policy, workforce management and training, and as the Project Leader for Air Force deployment of the DoD-wide contract writing and database system. In 1998, Mr. Sullivan was selected as the Acquisition Team Leader for the Pentagon Renovation Program and was responsible for developing the strategies for all program-wide and project specific acquisitions as well as developing all renovation program acquisition policies and procedures. In 1999, he was selected as the Deputy Associate Director for General Services with the responsibility for contracting, mail services, graphics and operation of the receiving facility supporting the Office of the President and the White House complex.

In Sep 2000, Mr. Sullivan was selected for his current position of Deputy Program Manager and was accepted into the Senior Executive Service. He has professional certifications in Contracting and Program Management.

## **EDUCATION**

Bachelor's degree in Management, 1979

Master's degree in Public Administration, 1981

## **AWARDS AND HONORS**

2000 OSD Exceptional Civilian Service Award

1997 Defense Leadership and Management Program

1995 Notable Achievement Award

1994 Air Force - Center Outstanding Civilian in Contracting

1992 Program Special Recognition Award

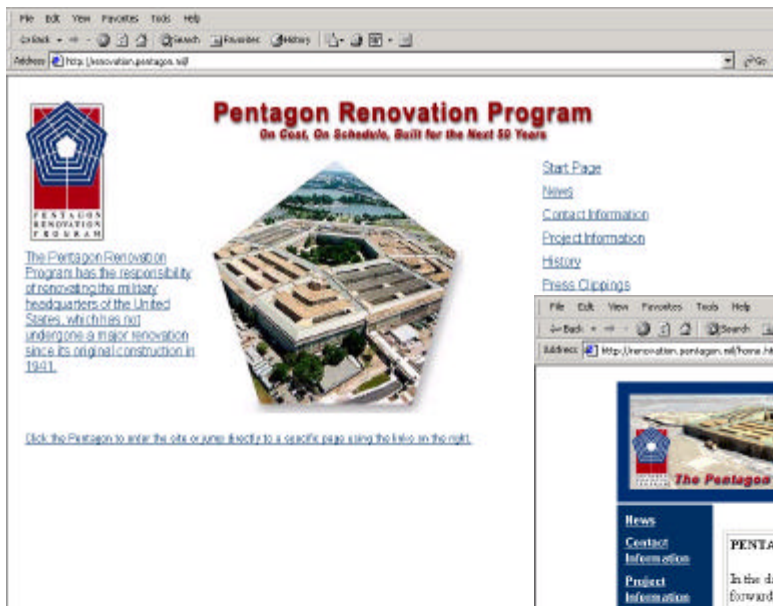
1990 Air Force - Center Contracting Officer of the Year

1990 Air Force - Center Professional Employee of the Year

1988 Air Force - Command Professional in Contracting Award

Various military service medals





## Pentagon Renovation Program Web Site:

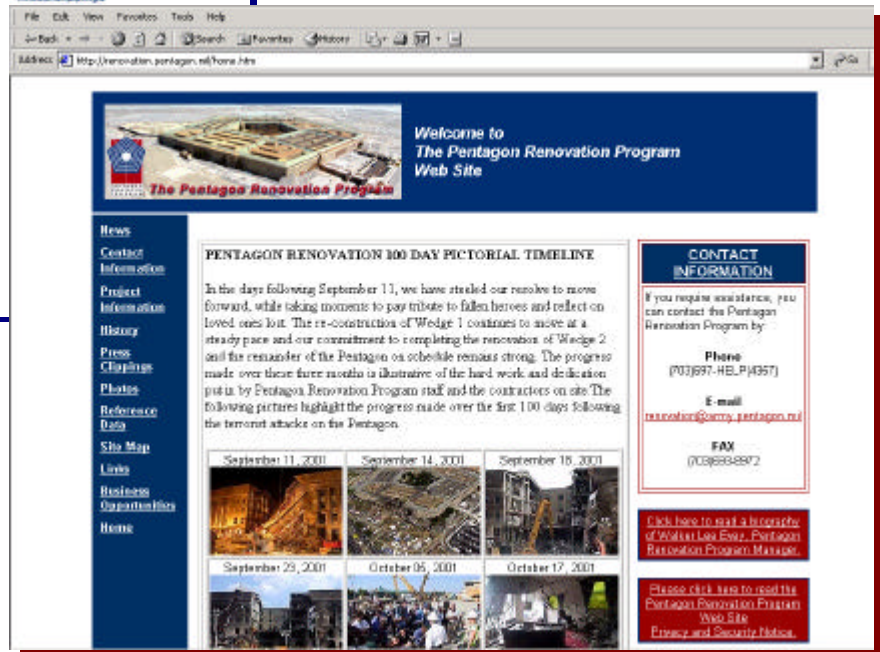
<http://renovation.pentagon.mil>

Visit PENREN online for:

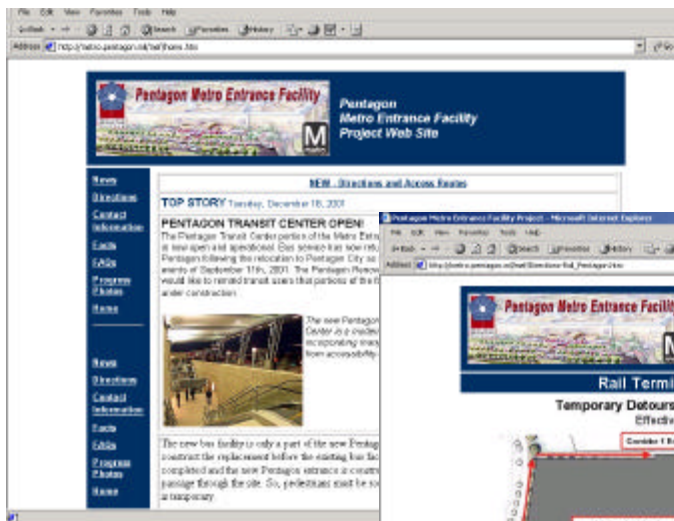
Program Information and History

Project Progress Photos and Reports

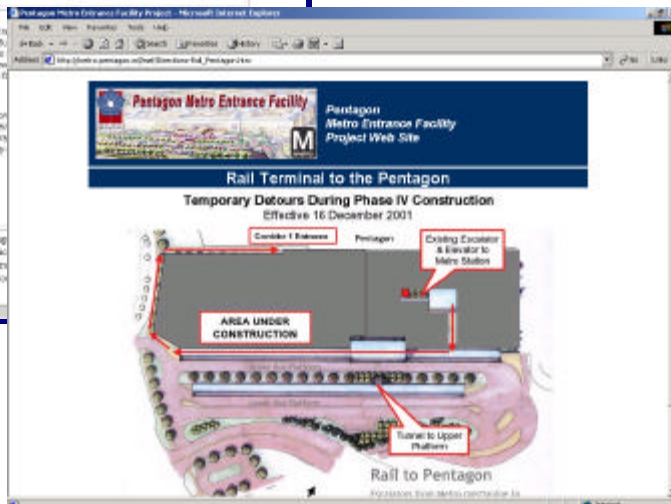
Staff Contact Information



Special Events and



For information on the  
Pentagon Metro Entrance Facility, visit  
<http://metro.pentagon.mil>



The Metro Entrance Facility project will improve the security of the Pentagon's Metro Entrance by reorganizing Pentagon arrival, access and circulation areas to create a safer environment. Every effort will be made to minimize the physical impact on transit users that changes to the facility may require. The construction will be phased and synchronized in such a way as to maintain transportation functions and access.